SPECTRUM®

MRXI-22/24
Management Module Guide

CABLETRON SYSTEMS
The Complete Networking Solution™

Summary of Changes

Version	Date	Reason/Rational	Nature of Changes

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Preface

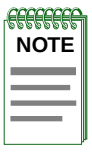
Use this guide as a reference for the SPECTRUM MRXI-22/24 management software. Before using this guide, you should be familiar with SPECTRUM's functions and navigational techniques as described in the Administration documentation and the Operation documentation.

For the purposes of this guide, the MRXI-22/24 is referred to as "device."

What Is in This Guide

The following outlines the organization of the *MRXI-22/24 Management Module Guide*:

Chapter	Description
Chapter 1 *Introduction*	Describes the device, the management module, and model types. This chapter also provides information on accessing device-specific views.
Chapter 2 *Device Views*	Describes the Device views representing the device.
Chapter 3 *Configuration Views*	Describes the Configuration views for the device and the network management information provided by these views.
Chapter 4 *Event and Alarm Messages*	Lists and explains the event and alarm messages generated in the Event Log or Alarm Manager for the device.



There is no Application View chapter in this book. All applications available for this device are described in the *Bridging Applications Reference*, the *MIB II Applications Reference*, or the *Miscellaneous Applications Reference*.

Conventions

This guide uses the following conventions:

- Menu selections and buttons referenced in text appear in bold; for example, Configuration or Detail.
- Button names appear in shadowed boxes when introducing paragraphs describing their use; for example:

- Menu navigation appears in order of selection; for example, Icon Subviews -> Utilities -> Application.
- Referenced chapter titles and section headings appear in *italics*.
- Referenced documents appear in ***bold italics***.
- MRXI-22/24 is referred to as “device.”
- References in blue are hypertext links for online documents.

Related SPECTRUM Documentation

When using this guide, you should have a clear understanding of SPECTRUM functionality and navigational techniques as described in the Administration documentation, the Operation documentation and the following documentation:

SPECTRUM Report Generator User’s Guide

Getting Started with SPECTRUM for Operators

Getting Started with SPECTRUM for Administrators

How to Manage Your Network with SPECTRUM

Other Related Documentation

Refer to the following documentation for more information on managing TCP/IP-based networks:

Martin, James, Kathleen Kavanagh Chapman, Joe Leben. *Local Area Networks: Architectures and Implementations*, 2d ed. Englewood Cliffs, NJ: Prentice Hall, 1994.

Rose, Marshall T. *The Simple Book: An Introduction to Management of TCP/IP-based Internets*. Englewood Cliffs, NJ: Prentice Hall, 1991.

Stallings, William. *Data and Computer Communications*, 4th ed. New York: Macmillan Publishing Company, 1994.

Tanenbaum, Andrew S. *Computer Networks*, 3d ed. Englewood Cliffs, NJ: Prentice Hall, 1996.

Chapter 1

Introduction

What Is in this Chapter

This chapter introduces the SPECTRUM management module for the MRXI-22/24. It describes the following:

- MRXI-22/24 Management Module
- SPECTRUM Model Type
- Accessing SPECTRUM Views
- SPECTRUM Views Roadmap
- SPMA Support

MRXI-22/24 Management Module

The MRXI-22 and MRXI-24 are standalone multi-port repeating hubs. The MRXI-22 contains twelve RJ-45 connectors, the MRXI-24 contains 24 RJ-45 connectors. Both devices support additional network connections through the use of one interchangeable front panel Ethernet Port Interface Module (EPIM). A variety of EPIMs permit the expansion of an 802.3 network by supporting UTP, STP, fiber optic, Thin Ethernet, and AUI network connections.

SPECTRUM Model Type

The model type HubCSIMRXi refers to the management module software package used to specify attributes, actions, and associations for the physical MRXI-22 or -24 device using the Simple Network Management Protocol (SNMP) and Management Information Bases (MIBs) for that device.

Accessing SPECTRUM Views

Icons and labels that display information within an icon, provide access to SPECTRUM views. This is done using double-click zones (Figure 1-1) or Icon Subviews menus (Figure 1-2)

To access the Icon Subviews menu as shown in Figure 1-2 and Figure 1-3, do the following:

1. Highlight the icon or label.
2. From the View menu, select Icon Subviews or click the applicable mouse button (middle or right). Refer to the *SPECTRUM Icons Reference* for information on configuring your mouse.

Figure 1-1. Using Double-Click Zones to Access SPECTRUM View

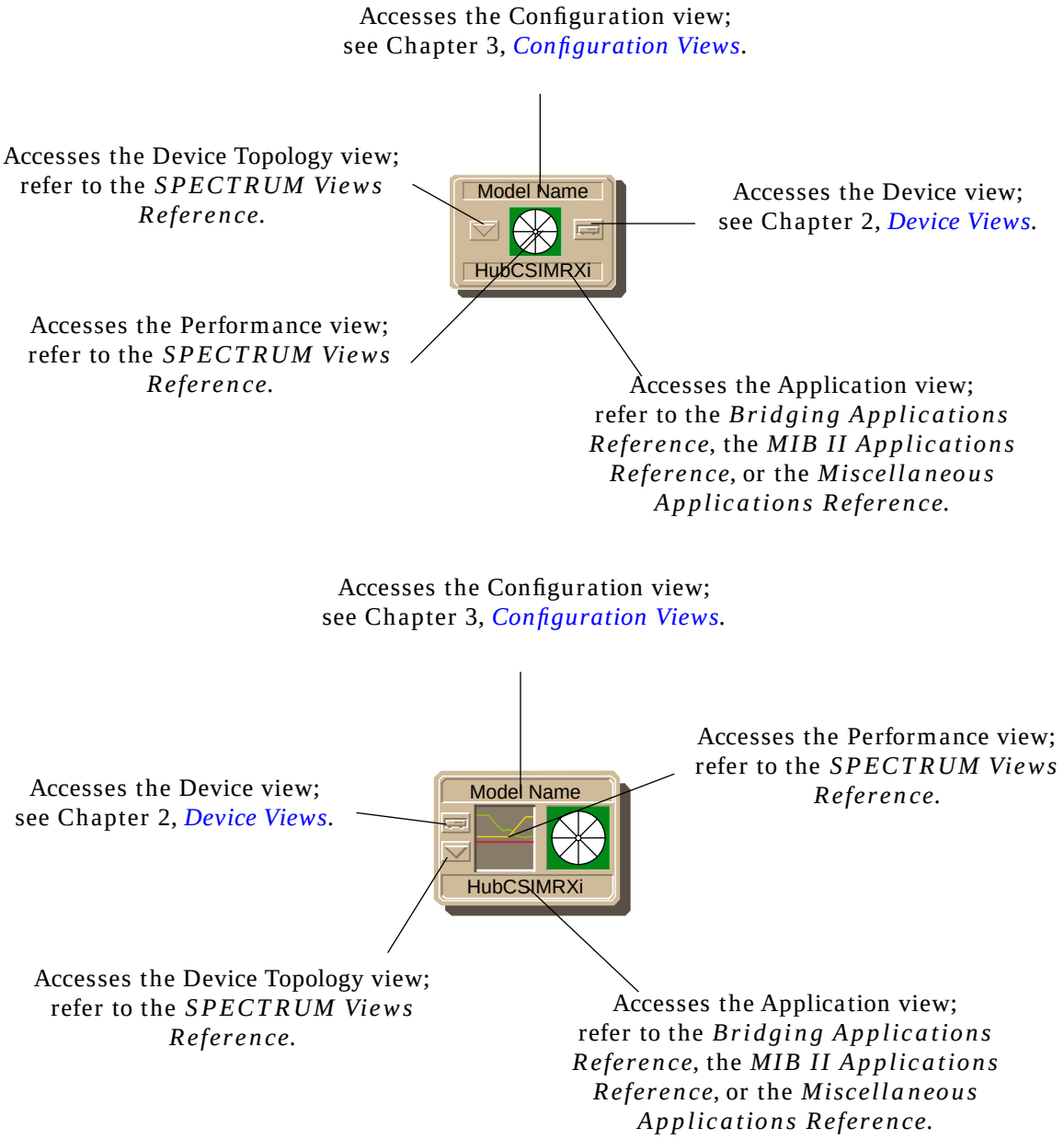


Figure 1-2. Using the Icon Subviews Menu to Access SPECTRUM Views

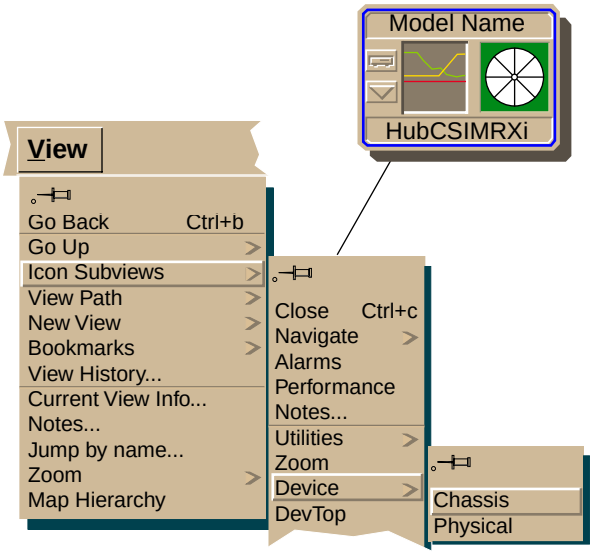
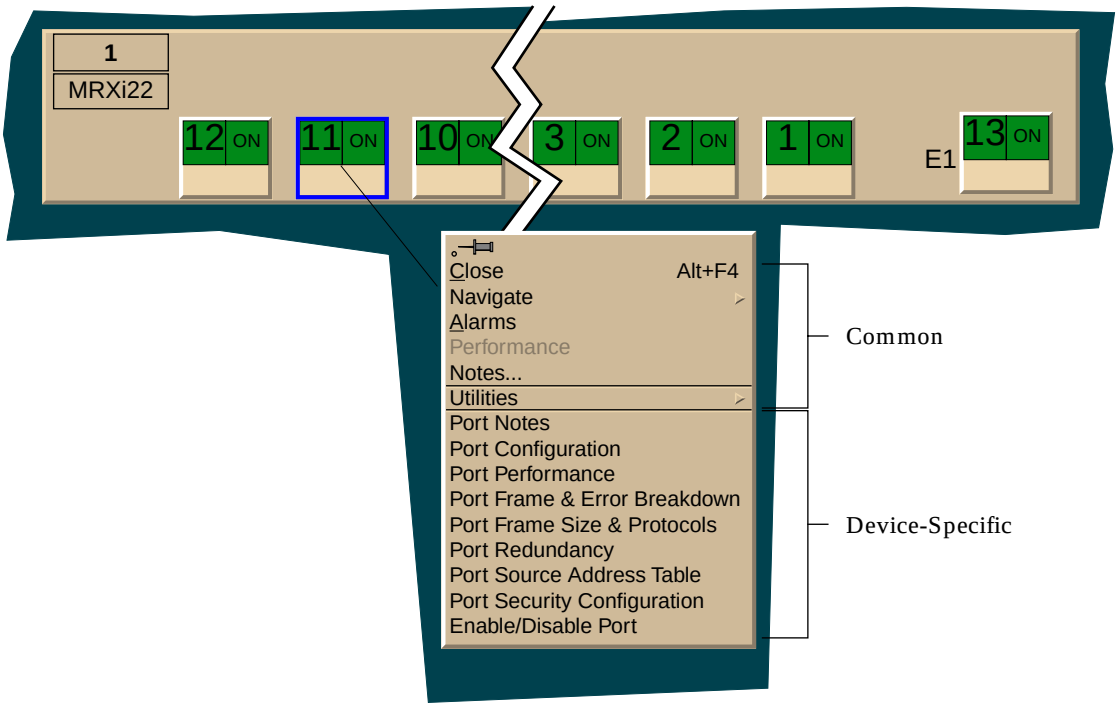


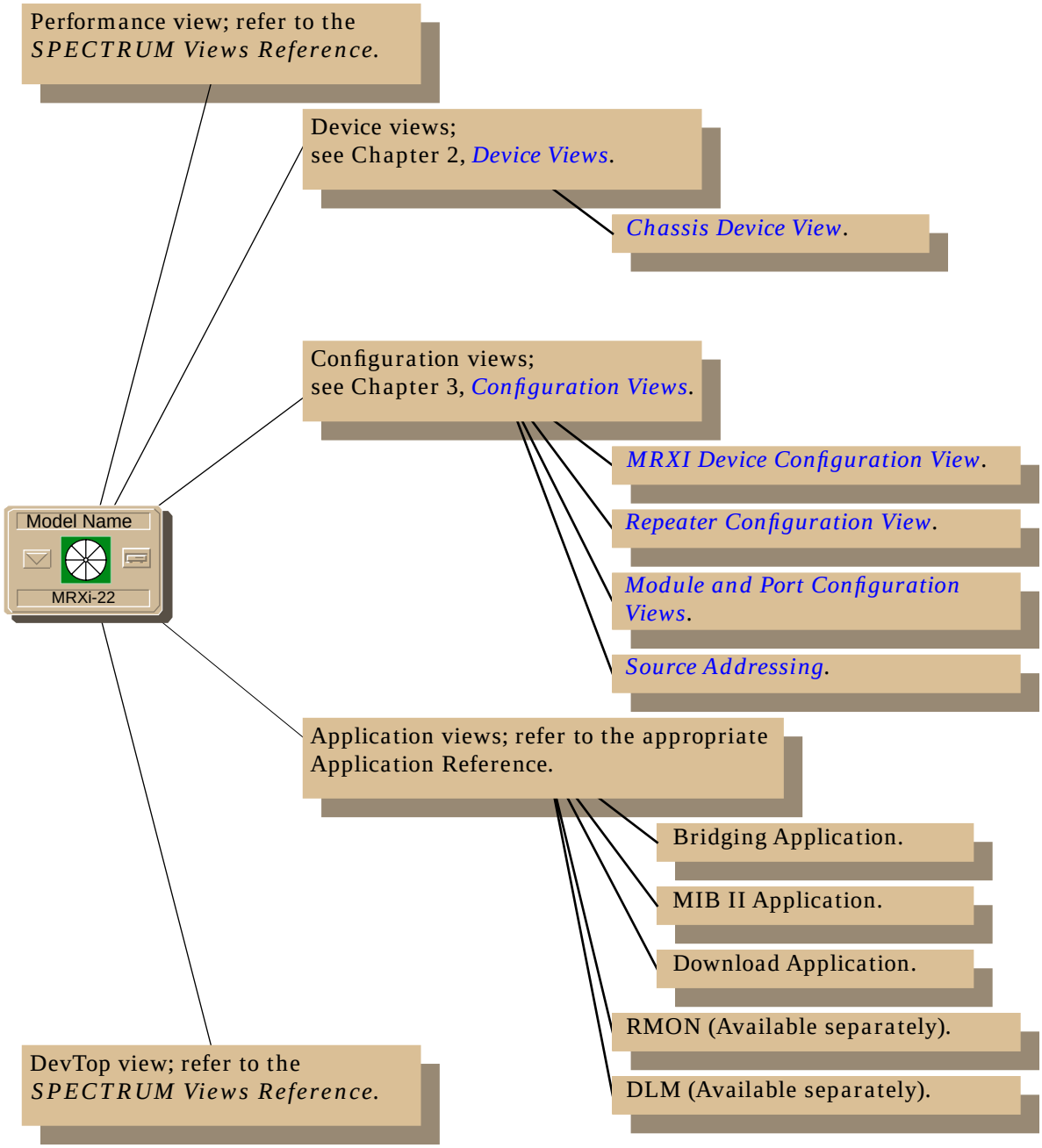
Figure 1-3. Accessing Device-Specific Subviews from Labels



SPECTRUM Views Roadmap

Figure 1-4 shows a "roadmap" of the SPECTRUM views for this device. These views are accessible from double-click zones (Figure 1-1) and Icon Subviews menus (Figure 1-2, and Figure 1-3).

Figure 1-4. SPECTRUM Views Roadmap



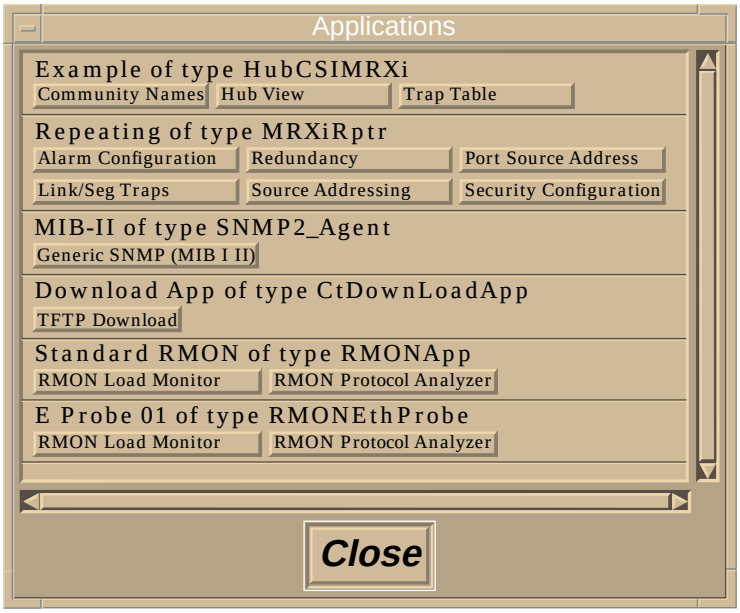
SPMA Support

SPECTRUM also supports the SPECTRUM Portable Management Application (SPMA) functionality for the MRXI-22/24. To open the SPMA Applications view, do the following:

1. Highlight the Device icon.
2. From the View menu, select Icon Subviews -> Utilities -> Applications....

Figure 1-5 shows an example of an SPMA Applications view.

Figure 1-5. SPMA Applications View



The buttons within the SPMA Applications view provide access to SPMA-specific views and dialog boxes. The Applications view for a particular device may include different buttons depending upon the applications available, the BRIM's installed, and the configuration of your device. Refer to the *SPECTRUM Portable Management Application for the MRXI-22/24 User's Guide* or the *SPECTRUM Portable Management Application Tools Guide*.

Chapter 2

Device Views

What Is in this Chapter

This chapter describes the following Device views and subviews available for the MRXI-22/24:

- Chassis Device view

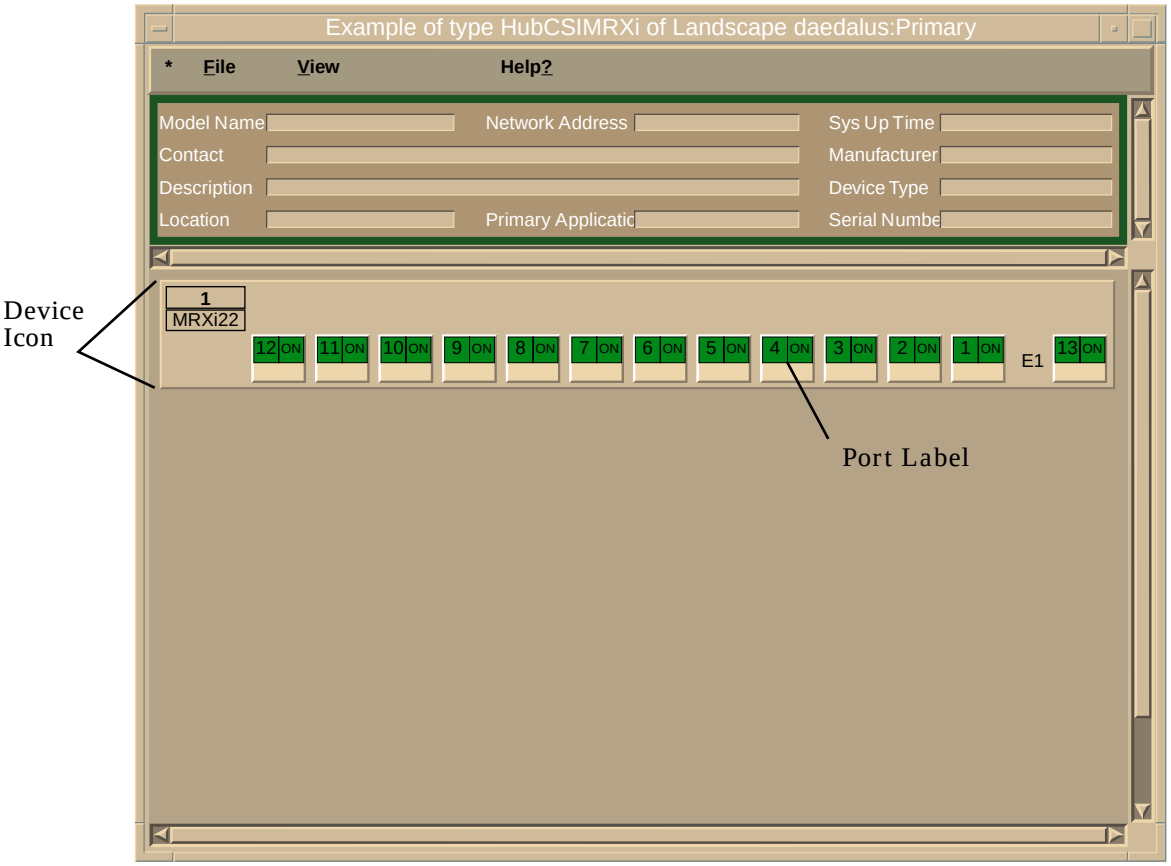
See Chapter 1, *Introduction* for information on *Accessing SPECTRUM Views*.

Chassis Device View

This view shows a logical representation of the device chassis and its interfaces or ports. The Chassis Device view provides menu and double-click zone access to the views that monitor the interfaces.

Figure 2-1 shows an example of the Chassis Device view for the MRXI-22.

Figure 2-1. Chassis Device View



Device Icon

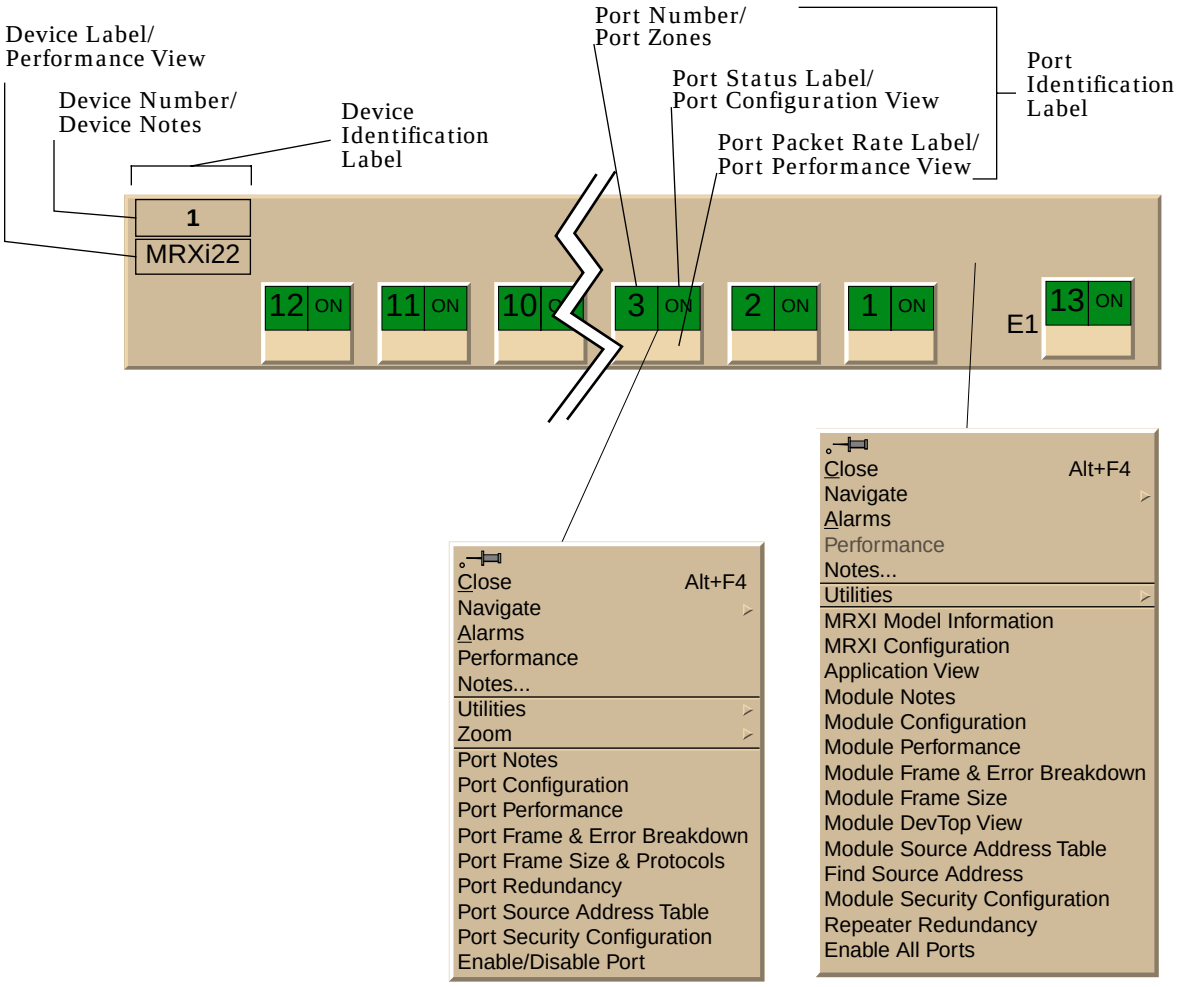
This icon is a logical representation of the physical module and its front panel interfaces or ports. This section describes the information available from the icon. Figure 2-2 shows an example of a Device icon.

NOTES

The callouts displayed in this illustration identify the label name and the view to which it provides double-click access. Example: Device Type/ Performance View displays the type of device and provides double-click access to the Performance View.

The menus displayed in the illustration are the Icon Subviews menus for that label.

Figure 2-2. Device Icon



Device Identification Label

This label provides the following information (See Figure 2-2):

Device Number
Identifies the device's location in the Stack. Double-click this area to open the Notes Facility described in the *SPECTRUM Views Reference*.

Device Label
Identifies the type of device. Double-click this label to open the Performance view described in the *SPECTRUM Views Reference*.

Device Icon Subviews Menu

Table 2-1 lists each of the device-specific Icon Subviews menu selections available for this device. For information on *Accessing SPECTRUM Views*, see Chapter 1, *Introduction*.

Table 2-1. Device Icon Subviews Menu

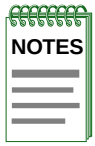
Menu Selection	Description
MRXI Model Information	Opens the MRXI Model Information view described in the *SEPCTRUM Views Reference*.
MRXI Configuration	Opens the *MRXI Device Configuration View* described in Chapter 3, *Configuration Views*.
Application View	Opens the MRXI Application view described in the *SEPCTRUM Views Reference*.
Module Notes	Opens the Notes view described in the *SEPCTRUM Views Reference*.
Module Configuration	Opens the *Module and Port Configuration Views* described in Chapter 3, *Configuration Views*.
Module Performance	Opens the Module Performance view described in the *SEPCTRUM Views Reference*.
Module Frame & Error Breakdown	Opens the Module Frame & Error Breakdown view described in the *SEPCTRUM Views Reference*.
Module Frame Size	Opens the Module Frame Size view described in the *SEPCTRUM Views Reference*.
Module DevTop View	Opens the Device Topology view described in the *SEPCTRUM Views Reference*.
Module Source Address Table	Opens the *Module Source Address Table View* described in Chapter 3, *Configuration Views*.
Find Source Address	Allows you to find a Source Address on the Module Source Address Table.

Table 2-1. Device Icon Subviews Menu (Continued)

Module Security Configuration	Opens the Repeater Security View described in the *SPECTRUM Portable Management Application for the MRXI-22/24 User's Guide.*
Repeater Redundancy	Opens the Repeater Redundancy Circuit View which allows you to set up redundancy on the device.
Enable All Ports	Displays the Enable All Ports view, which allows you to enable all the ports on the module.

Port Identification Label

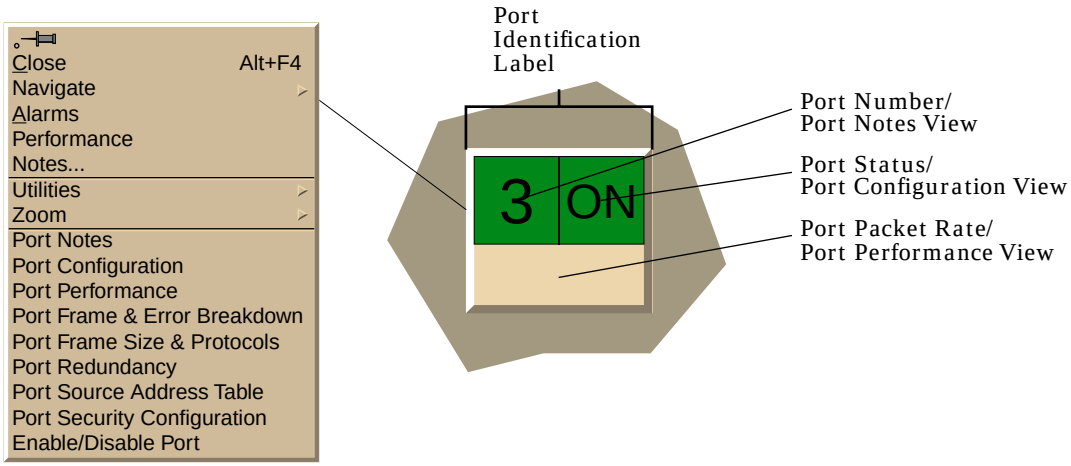
This label provides access to the Icon Subviews menu for the individual ports. It contains the following information (see Figure 2-3).



The callouts displayed in this illustration identify the label name and the view to which it provides double-click access. Example: Device Type/ Performance View displays the type of device and provides double-click access to the Performance View.

The menus displayed in the illustration are the Icon Subviews menus for that label.

Figure 2-3. Port Identification Label



Port Number

Displays the number of the port represented. For the MRXi-22, labels 1 through 12 refer to the port, and 13 to the EPIM. For the MRXi-24, 1 through 22 refer to the port, and 23 to the EPIM. Double-click this area to open the Notes view described in the *SPECTRUM Views Reference.*

Port Status
Displays the port activity status. Table 2-2 lists the possible states. Double-click this label to open the Port Configuration view described in the *SPECTRUM Views Reference.*

Table 2-2. Interface Status

Color	Status	Description
Green	ON	Port is forwarding.
Blue	UNK	The status is unknown.
Blue	OFF	Port is off.
Red	SEG	Segmented.
Yellow	NLK	No Link.

Port Packet Rate
Displays the number of packets transmitted. Double-click this area to open the Error Breakdown view described in the *SPECTRUM Views Reference.*

Port Identification Label Subviews Menu

Table 2-3 describes the Port Identification Label Subviews menu selections. See Chapter 1, *Introduction*, for information on *Accessing SPECTRUM Views*.

Table 2-3. Hub Stack Icon Subviews Menu

Menu Selection	Description
Port Notes	Opens the Notes view described in the *SPECTRUM Views Reference.*
Port Configuration	Opens the *Module and Port Configuration Views* described in Chapter 3, *Configuration Views*.
Port Performance	Opens the Port Performance view described in the *SPECTRUM Views Reference.*
Port Frame & Error Breakdown	Opens the Port Frame & Error Breakdown view described in the *SPECTRUM Views Reference.*
Port Frame Size & Protocols	Opens the Port Frame Size & Protocols view described described in the *SPECTRUM Views Reference.*
Port Redundancy	Opens the Port Redundancy Circuit View which allows you to set up redundancy on the selected port.
Port Source Address Table	Opens the *Port Source Address Table View* described in Chapter 3, *Configuration Views*.

Table 2-3. Hub Stack Icon Subviews Menu (Continued)

Port Security Configuration	Opens the Repeater Security View described in the *SPECTRUM Portable Management Application for the MRXi-22/-24 User's Guide.*
Enable/Disable Port	Displays the Enable/Disable Port View which allows you to toggle the selected port between enabled and disabled states.

Chapter 3

Configuration Views

What Is in this Chapter

This chapter describes the Configuration views available for the MRXI-22/24 hubs. These views display network configuration and operating information for the device and its interfaces.

The following Configuration views are available for this device:

- MRXI Device Configuration View
- Repeater Configuration View
- Module Configuration View
- Port Configuration View
- Source Address View

Refer to Chapter 1, *Introduction*, for information on *Accessing SPECTRUM Views*.

MRXI Device Configuration View

This view provides device-specific configuration information as well as access to other views that allow you to configure device components.

To access the MRXI Device Configuration view do the following:

1. Highlight the device icon.
2. From the Icon Subviews menu, select MRXI Configuration.

Device Configuration Information

This section of the MRXI Device Configuration view displays the following device-specific information:

Device Name
Displays the user-defined device name.

Contact Status
Indicates whether a connetcion with the device has been established. Possible values are Established, Lost, or Initial.

Firmware Revision
Displays the firmware version of the device.

Hardware Revision
Displays the hardware version of the device.

MAC Address
Displays the Ethernet (MAC) address of the device.

Date
Displays the date that the current firmware was loaded.

This view also provides the following buttons, which allow you to configure this device:

Component Table

Opens the MRXI-22/24 Component Table View described below.

DownLoad Application

Opens the DownLoad Application view. This view allows you to upgrade the firmware for the device from a TFTP Boot or Bootp Server.

MRXI-22/24 Component Table View

This view provides information on the device firmware components. Clicking in the Community String Fields allows you to change the selected component's community strings. The Component Status button allows you to enable or disable the selected component.

ID
Displays the identification number for this component.

Name
Displays the name of this component.

Basic Community String
Displays the community password. The default value for this entry is Public.

Status
Displays the administrative security status of the component. Possible states are Unknown, Invalid, Enabled, Testing, Operational, Error, Disabled, and Delete.

Interface Configuration Table

This section of the MRXI Device Configuration View provides the following interface configuration information:

Number of Interfaces
Displays the current number of interfaces in this Interface Configuration Table.

Description
Displays a description of the interface including the manufacturer, product name, and version number of the hardware interface.

Type
Displays the type of interface. Possible interface types and a brief description of each type are shown under MRXI-22/24 Component Table View.

Bandwidth
Displays the estimated bandwidth of the interface measured in bits per second. For interfaces that do not vary in bandwidth or for which no accurate estimate can be made, a nominal bandwidth is provided.

Phy Address
Displays the Ethernet (MAC) address of the interface.

Oper Status
Displays the current operational state of the interface (Up, Down, or Testing).

Admin Status
Displays the desired operational state of the interface (Up, Down, or Testing).

Change Time
Displays the SystemUpTime value when the interface entered its current operational state.

Q. Length
Displays the maximum length of the outbound queue in packets.

P. Size
Displays the largest Maximum Transmission Unit (MTU) that can be transmitted or received by the interface measured in octets.

Community String Information View

This view provides detailed information on a specific entry in the Component Table, and allows you to modify user-settable fields. You can access this view by double-clicking on the desired entry in the Component Table.

ID
Displays the component identification number.

Name
Displays the name of this component.

Version
Displays the version number for this firmware component.

Administrative Status

Allows you to set the administrative security status of the component. Possible states are Unknown, Invalid, Enabled, Testing, Operational, Error, Disabled, and Delete.

Basic Community String
Displays the basic community string for this component. The default is Public.

Read Only Community String
Displays the read only community string for this component.

Read Write Community String
Displays the read write community string for this component.

Super User Community String
Displays the super user community string for this component.

Repeater Configuration View

This view provides information on the MRXI-22/24 network, host, port, and model configuration.

To access the Repeater Configuration view do the following:

1. Within the Application view, highlight the MRXiRptr icon.
2. From the Icon Subviews menu, select Configuration.

Repeater Management

This area of the Repeater Configuration view provides the following port information:

Port Count
Displays the total number of ports on this LAN segment.

Ports On
Displays the total number of ports on this network currently in the ON state.

Ports Operational
Displays the number of ports on this network currently transmitting/receiving data.

Network Ports

Allows you to Enable all the ports on this network segment.

Network Port Security

Allows you to configure the security state for the ports on this network segment.

Source Address Management

This area of the Repeater Configuration view provides the following source address information:

Ageing Interval
Displays the timeout period, in seconds. The timeout period is how long dynamically learned forwarding information remains in the database before being selected. You can modify this value.

Trap Configuration

This area of the Repeater Configuration view allows you to enable or disable any of the following types of traps:

Link Traps

Allows you to Enable the Link Trap generation, such that all packets indicating a change in link status are reported within the trap database.

Segmentation Traps

Allows you to Enable the Segmentation Trap generation, such that all packets indicating a change in segmentation status are reported within the trap database.

Source Address Traps

Allows you to Enable the Source Address Trap generation, such that all packets indicating a change in source address are reported within the trap database.

Alarm Configuration

This area of the Repeater Configuration view provides the following configuration and status information for generating alarms for the device:

Timebase
Allows you to set the number of seconds used as the interval for performing all of the rate alarm checks. The minimum is 10 seconds. For example, if the timebase is 10 seconds, an alarm will occur only when the specified number of errors occur within 10 seconds.

Traffic Alarms

Allows you to configure whether traffic alarms are disabled or enabled.

Traffic Threshold
Displays the threshold number of packets, within the alarm timebase, that will generate a traffic alarm. You can modify this value.

Collision Alarms

Allows you to configure whether collision alarms are disabled or enabled.

Collision Threshold
Displays the threshold number of collisions per good packet, within the alarm timebase, that will generate a collision alarm. You can modify this value.

Broadcast Alarms

Allows you to configure whether broadcast alarms are disabled or enabled.

Broadcast Threshold
Displays the threshold number of broadcasts received, within the alarm timebase, that will generate a broadcast alarm. You can modify this value.

Error Alarms

Allows you to configure whether error alarms are disabled or enabled.

Error Threshold
Displays the percentage of errors per good packet, within the alarm timebase, that will generate an error alarm.

Error Source

This area of the Repeater Configuration view provides a series of buttons, allowing you to select the types of errors to include in the error sum. The selectable error types are as follows:

CRC
Displays the number of packets received with bad Cyclical Redundancy Checks (CRC).

Runts
Displays the number of runt packets received. A runt packet is one byte less than the standard Ethernet frame of 64 bytes, not including preamble.

OOW_Colls
Displays the number of out-of-window collisions, those outside the standard window (51.2µs), due to a network problem.

Alignment
Displays the number of misaligned packets detected.

No_Resource
Displays the number of times the board ran out of resources (i.e., lack of buffer space) and packets could not be accepted.

Giants
Displays the amount of giant packets received. A giant packet exceeds 1518 bytes, not including preamble.

Board Map

This area of the Repeater Configuration view displays a series of read-only indicators displaying the slot numbers where the repeater resides in the MMAC-FNB chassis. Standalone devices, such as the MRXI-22/24, will always exist in Slot-1.

Manages

This area of the Repeater Configuration view displays the user-supplied or default model name of the device managing this repeater. This section also allows you to access the Device Configuration view by double-clicking the name, or highlighting the name and clicking OK.

Module and Port Configuration Views

The Module or Port Configuration views provide information on the configuration and operating status of the MRXI-22/24 module as a whole or of selected individual ports on the module.

To access the Module Configuration view do the following:

1. Highlight the device icon.
2. From the Icon Subviews menu, select Module Configuration or Port Configuration.

Module Management (Module Configuration View Only)

This area of the Module Configuration view provides the following port information for the selected module:

Port Count
Displays the total number of ports on this module.

Ports On
Displays the total number of ports on this module currently in the ON state.

Ports Operational
Displays the number of ports on this module currently transmitting/receiving data.

Module Ports

Allows you to Enable all the ports on this module. You can also enable module ports by selecting Enable All Ports from the Icon Subviews menu.

Port Management (Port Configuration View Only)

This area of the Port Configuration view provides the following information for the selected port:

Port ID
Displays the number of the module port.

Administrative Status

Allows you to configure the desired state of the port (Enable or Disable).

Operational Status
Displays the current operational state of the port (Not-Operational or Operational).

Segmentation Status
Displays the current segmentation state of the port (Not-Segmented or Segmented).

Link Status
Displays the current link state of the port (Not-Linked, Linked, or Not-Applicable).

Topological State
Displays the current port topological state (Station or Trunk).

Set Topological State

Allows you to configure the desired port topological state (Not_Forced or Forced_Trunk).

Trap Configuration

This area of the Module or Port Configuration View allows you to enable or disable any of the following types of traps:

Link Traps

Allows you to Enable Link Trap generation, such that all packets indicating a change in link status are reported within the trap database.

Segmentation Traps

Allows you to Enable Segmentation Trap generation, such that all packets indicating a change in segmentation status are reported within the trap database.

Source Address Traps

Allows you to Enable Source Address Trap generation, such that all packets indicating a change in source address are reported within the trap database.

Alarm Configuration

This area of the Module or Port Configuration view provides the following configuration and status information for generating alarms for the selected module or port:

Traffic Alarms

Allows you to configure whether traffic alarms are disabled or enabled.

Traffic Threshold
Displays the threshold number of packets, within the alarm timebase, that will generate a traffic alarm. You can modify this value.

Traffic Alarm Condition

Allows you to disable the module or port if the traffic alarm conditions described above are met and an alarm for the module is generated. This is useful in preventing excessive network traffic from alarm messages transmitted by the module, and allows for module troubleshooting.

Collision Alarms

Allows you to configure whether collision alarms are disabled or enabled.

Collision Threshold
Displays the threshold number of collisions per good packet, within the alarm timebase, that will generate a collision alarm. You can modify this value.

Collision Alarm Condition

Allows you to disable the module or port if the collision alarm conditions described above are met and an alarm for the module or port is generated. This is useful in preventing excessive network traffic from alarm messages transmitted by the module, and allows for module or port troubleshooting.

Broadcast Alarms

Allows you to configure whether broadcast alarms are disabled or enabled.

Broadcast Threshold
Displays the threshold number of broadcasts received, within the alarm timebase, that will generate a broadcast alarm. You can modify this value.

Broadcast Alarm Condition

Allows you to disable the module or port if the broadcast alarm conditions described above are met, and an alarm for the module or port is generated. This is useful in preventing excessive network traffic from alarm messages transmitted by the module, and allows for module or port troubleshooting.

Error Alarms

Allows you to configure whether error alarms are disabled or enabled.

Error Threshold
Displays the percentage of errors per good packet, within the alarm timebase, that will generate an error alarm. You can modify this value.

Error Alarm Condition

Allows you to disable the module or port if the error alarm conditions described above are met and an alarm for the module or port is generated. This is useful in preventing excessive network traffic from alarm messages transmitted by the module, and allows for module or port troubleshooting.

Error Source

This view is the same as that described under *Error Source* in the section on *Repeater Configuration View*.

Source Addressing

Source Address Tables are used to determine which frames will be forwarded from one network segment to another. This section provides a description of the source addressing views used to establish a source address table for the MRXI-22/24.

Module Source Address Table View

To access the Module Source Address Table view do the following:

1. Highlight the MRXI-22/24 Device Icon.
2. From the Icon Subviews menu, select Module Source Address Table.

This view provides the following information:

Source Address
The addresses of the source devices sending packets received by the MRXI-22/24 module over any port.

Port ID
The number identifying the port over which the module received the packet from the corresponding source address.

Board ID
The number identifying the MRXI-22/24 module. This value will always be 1.

Source Address Board/Port Location View

To access the Source Address Board/Port Location view do the following:

1. Highlight the MRXI-22/24 Device Icon.
2. From the Icon Subviews menu, select Find Source Address.

This view provides the following information:

Model Name
The network name of the MRXI-22/24 being modeled.

Network Address
The IP address of the MRXI-22/24 being modeled.

Source Address
Enter the desired ethernet address here, using the File/Update feature.

Board Number
The module through which packets are being sent for the specified ethernet source address.

Port Number
The port through which packets are being sent for the specified ethernet source address.

Port Source Address Table View

To access the Port Source Address Table view do the following:

1. Highlight the MRXI-22/24 Device Icon.
2. From the Icon Subviews menu, select Port Source Address Table.

This view provides the following information:

Name
Name of the application (Repeating) being run by the port.

Network Address
The IP address of the MRXI-22/24 being modeled.

Device Type
A textual identifier for the kind of device being modeled.

Slot/Port Number
The number identifying the module and port this table applies to, in the format *module.port*. The value of the module will always be 1.

Port Source Address Table
The addresses of the source devices sending packets received by the MRXI-22/24 module over this port.

Chapter 4

Event and Alarm Messages

What Is in this Chapter

This chapter describes the types of events and alarms generated by the MRXI-22/24 and any probable cause messages corresponding to these alarms.

MRXI-22/24 Events and Alarms

Table 4-1 describes the event messages appearing in the Event Log, and any corresponding probable cause messages that may be displayed in the Enterprise Alarm Manager View for the MRXI-22/24.

Table 4-1. MRXI-22/24 Events and Alarms

Message in the Event Log	Alarm View Probable Cause Message
CsEvFormat/Event00010306 {d "%w- %d %m-, %Y - %T"} A(n) {t} device, named {m}, has been cold started. (event [{e}])	No Probable cause message.
CsEvFormat/Event00010307 {d "%w- %d %m-, %Y - %T"} A(n) {t} device, named {m} has been warm started. (event [{e}])	No Probable cause message.

Table 4-1. MRXI-22/24 Events and Alarms (Continued)

CsEvFormat/Event00010308 {d "%w- %d %m-, %Y - %T"} A(n) {t} device, named {m}, has detected a communication Link Down. (event [{e}])	CsPCause/Prob00010308 Communication link is down.
CsEvFormat/Event00010309 {d "%w- %d %m-, %Y - %T"} A(n) {t} device, named {m}, has detected a communication Link Up. (event [{e}])	No Probable cause message.
CsEvFormat/Event0001030a {d "%w- %d %m-, %Y - %T"} A(n) {t} device, named {m}, has detected an Authentication Failure. (event [{e}])	CsPCause/Prob0001030a A user is trying to connect to a device with an invalid community string.
CsEvFormat/Event0001030b {d "%w- %d %m-, %Y - %T"} A(n) {t} device, named {m}, has detected an EGP Neighbor Loss. EGP Neighbor IP address is {O 1}. (event [{e}])	CsPCause/Prob0001030b Lost contact with EGP neighbor.
CsEvFormat/Event000d0101 {d "%w- %d %m-, %Y - %T"} Port {I 3} on module in slot {I 1} of {m} ({t}), has segmented. (event [{e}])	CsPCause/Prob000d0101 Cabling problem of extremely high rates of traffic on the segment the port is attached to.
CsEvFormat/Event000d0102 {d "%w- %d %m-, %Y - %T"} Port {I 3} on module in slot {I 1} of {m} ({t}), has unsegmented. (event [{e}])	CsPCause/Prob000d0102 1) A cable or termination fault has been corrected. 2) Unsegmenting also can occur on a port that previously was not in use.
CsEvFormat/Event000d0103 {d "%w- %d %m-, %Y - %T"} Network configuration change reported by {m} ({t}). Device linked to port {I 3} on module in slot {I 1}. (event [{e}])	CsPCause/Prob000d0103 A device supporting link integrity, fiber optic or twisted pair, has made a valid connection (link) to this port.
CsEvFormat/Event000d0104 {d "%w- %d %m-, %Y - %T"} Network configuration change reported by {m} ({t}). Device previously linked to port {I 3} on module in slot {I 1} has ceased to transmit link integrity pulse. (event [{e}])	CsPCause/Prob000d0104 1) A device previously linked with this port has been removed or powered down. 2) The cable segment has a fault.

Table 4-1. MRXI-22/24 Events and Alarms (Continued)

CsEvFormat/Event000d0105 {d "%w- %d %m-, %Y - %T"} New source address {X 5}, is detected on {m} ({t}), port {I 3} of module in slot {I 1}. (event [{e}])	CsPCause/Prob000d0105 1) The device is new. 2) The device has been powered up but has not transmitted a packet with the aging time period.
CsEvFormat/Event000d0106 {d "%w- %d %m-, %Y - %T"} Source address {X 5}, has timed out on port {I 3} of the module in slot {I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0106 A device linked or not linked to this port has not transmitted a packet during the aging time period, and has been removed from the source address table of the device.
CsEvFormat/Event000d0107 {d "%w- %d %m-, %Y - %T"} Device configuration change reported by {m} ({t}). The module in slot {I 1} has been removed. (event [{e}])	CsPCause/Prob000d0107 A module within this hub has been removed or has failed.
CsEvFormat/Event000d0108 {d "%w- %d %m-, %Y - %T"} Device configuration change reported by {m} ({t}), An (EPIM) has been inserted into slot {I 1} of the MMAC. (event [{e}])	CsPCause/Prob000d0108 A module has been inserted into this hub.
CsEvFormat/Event000d0109 {d "%w- %d %m-, %Y - %T"} Network configuration change reported by {m} ({t}). Port {I 3} in slot {I 1} has failed redundancy polling and has switched to a backup port. (event [{e}])	CsPCause/Prob000d0109 1) The device(s) have failed or have been powered down. 2) A cable fault from the active port to the polled device has occurred.
CsEvFormat/Event000d010a {d "%w- %d %m-, %Y - %T"} Network configuration change reported by {m} ({t}). Port {I 3} in slot {I 1} has now become active as the result of a redundancy poll failure. (event [{e}])	CsPCause/Prob000d010a The polled device has been communicated with via a backup port and the port is now active. The other ports in this redundant circuit are now designated as backup and are turned off to prevent data loops on the network.
CsEvFormat/Event000d010b {d "%w- %d %m-, %Y - %T"} Redundancy diagnostics of {m} ({t}), indicate that the redundant link for module {I 1}, port {I 3} has failed. (event [{e}])	CsPCause/Prob000d010b The cable segment connected to the port has a cable fault.

Table 4-1. MRXI-22/24 Events and Alarms (Continued)

CsEvFormat/Event000d010f {d "%w- %d %m-, %Y - %T"} User defined traffic threshold - {I 1} packets within {I 3} seconds, exceeded on module {I 5} of {m} ({t}). (event [{e}])	CsPCause/Prob000d010f The device(s) attached to this module may have an application which requires a large amount of network bandwidth.
CsEvFormat/Event000d0110 {d "%w- %d %m-, %Y - %T"} Error threshold exceeded. An error threshold, of {I 1}% of total packets in {I 5} seconds, exceeded on module in slot {I 7}. (event [{e}])	CsPCause/Prob000d0110 1) A malfunctioning device is present on this module. 2) A cable fault exists.
CsEvFormat/Event000d0111 {d "%w- %d %m-, %Y - %T"} Collision threshold exceeded. The number of collisins per total packets within the time base of {I 3} seconds has been exceeded on the module in slot {I 5} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0111 Collisions are caused by many nodes contending for the network or cabling faults.
CsEvFormat/Event000d0112 {d "%w- %d %m-, %Y - %T"} Traffic threshold, {I 1} packets per {I 3} seconds, exceeded on port {I 7} on module in slot {I 5} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0112 The device(s) attached to this port may have an application which requires a large amount of network bandwidth.
CsEvFormat/Event000d0113 {d "%w- %d %m-, %Y - %T"} Error threshold exceeded. An error threshold, of {I 1}% of total packets in {I 5} seconds, exceeded on port {I 9} on module in slot {I 7} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0113 1) The device(s) attached to this port could have a hardware failure where it transmits invalid packets. 2) The cable segment attached to this port may have a problem.
CsEvFormat/Event000d0114 {d "%w- %d %m-, %Y - %T"} Collision threshold exceeded. The number of collisins per total packets within the time base of {I 3} seconds has been exceeded on port {I 7} on module in slot {I 5} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0114 1) The device(s) attached to this port may have an adapter card problem which causes them to transmit without regarding network availability. 2) A cable problem may exist.

Table 4-1. MRXI-22/24 Events and Alarms (Continued)

CsEvFormat/Event000d0115 {d "%w- %d %m-, %Y - %T"} Port Topology type changed. Port {I 3} of module in slot {I 1} has changed from {T PrtTopoStatus 5} port on {m} ({t}). (event [{e}])	CsPCause/Prob000d0115 The number of addresses in the source address table has changed. If three or more addresses are learned on a port for one aging time period, the port is designated as a trunk port. A port connecting two hubs or a coax segment with multiple taps are examples of trunk ports. If a port has one address in the source address table for one aging time, the port is designated as a station port. An example of a station port would be a twisted pair "home run" to a PC.
CsEvFormat/Event000d0117 {d "%w- %d %m-, %Y - %T"} Port security violation has occurred, MAC address {X 5} has been detected on port {I 3} of module in slot {I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0117 This event is only generated when the hub has port locking enabled. When a hub is locked, the source MAC addresses are learned on each port. When a port detects an attached device has changed its address, the device will note that the new address is not in the source address table. This will disable and lock the port, which then transmits this trap. This trap would be generated if an adapter were replaced or if an intruder attempted to access the network.
CsEvFormat/Event000d0118 {d "%w- %d %m-, %Y - %T"} Port violation reset, port {I 3} of module in slot {I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0118 The network administrator has located the offending device that caused the port violation, and has re-enabled the port for use by the original network address for that port.
CsEvFormat/Event000d0119 {d "%w- %d %m-, %Y - %T"} Environment Temperature Warm condition for module in slot {I 1} reported by {m} ({t}). (event [{e}])	CsPCause/Prob000d0119 1) A module may be defective. 2) A fan has failed in the chassis.
CsEvFormat/Event000d011a {d "%w- %d %m-, %Y - %T"} Environment Temperature Hot condition for module in slot {I 1} reported by {m} ({t}). (event [{e}])	CsPCause/Prob000d011a 1) A module may be defective. 2) A fan has failed in the chassis.

Table 4-1. MRXI-22/24 Events and Alarms (Continued)

CsEvFormat/Event000d011b {d "%w- %d %m-, %Y - %T"} Environment Voltage Low condition has been detected by power supply in slot {I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d011b 1) The power supply may be defective. 2) An AC power failure has occurred into the power supply module.
CsEvFormat/Event000d011c {d "%w- %d %m-, %Y - %T"} Environment Temperature Normal condition for module in slot {I 1} reported by {m} ({t}). (event [{e}])	CsPCause/Prob000d011c A chassis or cooling system problem at this device's location has been corrected.
CsEvFormat/Event000d011d {d "%w- %d %m-, %Y - %T"} Environment Voltage Normal, all power supply voltages have returned to NORMAL for {m} ({t}). (event [{e}])	CsPCause/Prob000d011d The problem with the power supply module or AC power feed has been corrected and the unit is now functioning normally.
CsEvFormat/Event000d011e {d "%w- %d %m-, %Y - %T"} A fan in the system's chassis has failed or is operating at an abnormal RPM rate, has been detected by {m} ({t}). (event [{e}])	CsPCause/Prob000d011e 1) One or more fans in the fan tray assembly have failed. 2) The fan tray has been removed.
CsEvFormat/Event000d011f {d "%w- %d %m-, %Y - %T"} A fan in the system's chassis has resumed normal operation, has been detected by {m} ({t}). (event [{e}])	CsPCause/Prob000d011f The problem previously detected with the fan assembly has been corrected and the unit is now functioning normally.
CsEvFormat/Event000d0121 {d "%w- %d %m-, %Y - %T"} Broadcast threshold exceeded {I 1} total packets in {I 3} seconds on the module in slot {I 5} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0121 The broadcast (packets per time interval) threshold has been exceeded for the given module.
CsEvFormat/Event000d0122 {d "%w- %d %m-, %Y - %T"} Broadcast threshold exceeded {I 1} total packets in {I 3} seconds on port {I 7} on the module in slot {I 5} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0122 The broadcast (packets per time interval) threshold has been exceeded for the given port.
CsEvFormat/Event000d0125 {d "%w- %d %m-, %Y - %T"} System Voltage Low condition has been detected by {m} ({t}). (event [{e}])	CsPCause/Prob000d0125 1) The power supplies are failing. 2) There is not enough power available to the host modules.

Table 4-1. MRXI-22/24 Events and Alarms (Continued)

CsEvFormat/Event000d0126 {d "%w- %d %m-, %Y - %T"} System Voltage Normal condition has been detected by {m} ({t}). (event [{e}])	CsPCause/Prob000d0126 The problem with the internal 5 volt line of the system has been corrected.
CsEvFormat/Event000d0127 {d "%w- %d %m-, %Y - %T"} An EPIM has been removed from port {I 3} on module in slot {I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0127 An Ethernet Port Interface Module (EPIM) has been physically removed.
CsEvFormat/Event000d0128 {d "%w- %d %m-, %Y - %T"} An (EPIM) has been inserted into port {I 3} on module in slot {I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0128 An Ethernet Port Interface Module (EPIM) has been physically inserted.
CsEvFormat/Event000d0129 {d "%w- %d %m-, %Y - %T"} Traffic threshold, {I 1} packets per {I 3} seconds, exceeded on the repeater network {I 5} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0129 The device(s) attached to this channel may have an application level problem. The attached devices may be operating properly, but the application requires a large amount of network bandwidth.
CsEvFormat/Event000d0130 {d "%w- %d %m-, %Y - %T"} Error threshold exceeded. An error threshold, of {I 1}% total packets in {I 5} seconds, exceeded on repeater network {I 7} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0130 1) A malfunctioning device is present on this channel. 2) A cable fault exists.
CsEvFormat/Event000d0131 {d "%w- %d %m-, %Y - %T"} Collision threshold exceeded. The number of collisins per total packets within the time base of {I 3} seconds has been exceeded on repeater network {I 5} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0131 1) A malfunctioning device is present on this channel. 2) A cable fault exists. 3) Collisions are usually caused by many nodes contending for the network. As traffic rates increase, the collision rate usually follows. Therefore, if this channel has a high bandwidth utilization, a high collision rate is not unlikely.
CsEvFormat/Event000d0132 {d "%w- %d %m-, %Y - %T"} Network port security is {T LockStatus 1} on repeater network {I 3} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0132 The network administrator has changed the status of port locking for this repeater channel. The security feature locks all ports on this repeater channel so that only a valid user already in the source address table can access the network.

Table 4-1. MRXI-22/24 Events and Alarms (Continued)

CsEvFormat/Event000d0133 {d "%w- %d %m-, %Y - %T"} Broadcast threshold exceeded {I 1} total packets in {I 3} seconds on repeater network {I 5} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0133 The broadcast (packets per time interval) threshold has been exceeded for the repeater.
CsEvFormat/Event000d0135 {d "%w- %d %m-, %Y - %T"} Port Security Status is {T LockStatus 3} for port #{I 2 }, located in port group #{I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d0135 A change in the lock status for a particular port has occurred.
CsEvFormat/Event000d0136 {d "%w- %d %m-, %Y - %T"} Device configuration change reported by {m} ({t}). The module in slot {I 1} has been inserted.	CsPCause/Prob000d0136 A module has been inserted into this hub.
CsEvFormat/Event000d0137 {d "%w- %d %m-, %Y - %T"} Alternate Path Repeater Management has been enabled for {m} of type {t} Network Address Synchronized to {O 1}. - (event [{e}])	CsPCause/Prob000d0137 Alternate Path Repeater Management functionality has been enabled for this repeater model.
CsEvFormat/Event000d0138 {d "%w- %d %m-, %Y - %T"} Alternate Path Repeater Management has been enabled for {m} of type {t} No Network Address Syncronization. - (event [{e}])	CsPCause/Prob000d0138 Alternate Path Repeater Management functionality has been enabled for this repeater model.
CsEvFormat/Event000d0139 {d "%w- %d %m-, %Y - %T"} Alternate Path Repeater Management has been disabled for {m} of type {t} Network Address Syncronized to {O 1}. - (event [{e}])	CsPCause/Prob000d0139 Alternate Path Repeater Management functionality has been disabled for this repeater model.
CsEvFormat/Event000d013a {d "%w- %d %m-, %Y - %T"} Alternate Path Repeater Management has been disabled for {m} of type {t} No Network Address Syncronization. - (event [{e}])	CsPCause/Prob000d013a Alternate Path Repeater Management functionality has been disabled for this repeater model.

Table 4-1. MRXI-22/24 Events and Alarms (Continued)

CsEvFormat/Event000d013b {d "%w- %d %m-, %Y - %T"} Alternate Path Repeater Management has activated for {m} of type {t} Network Address changed from {O 1} to {O 2}. - (event [{e}])	CsPCause/Prob000d013b Router Redundancy for the managing device model has probably been activated.
CsEvFormat/Event000d1139 {d "%w- %d %m-, %Y - %T"} Port Security Status is {T SecureState 3} for port #{I 2 }, located in port group #{I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d1139 The status of the secure state for a specific port has changed.
CsEvFormat/Event000d113a {d "%w- %d %m-, %Y - %T"} Network Learning Status is {T LearnState 2} for the network interface #{I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d113a Network learning has been reset. When learning is reset, all secure addresses on each port, within the network, will be deleted and ports will learn source addresses again.
CsEvFormat/Event000d113b {d "%w- %d %m-, %Y - %T"} Port Group Learning Status is {T LearnState 2} for the port group #{I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d113b A port group's learning has been reset. When learning is reset, all secure addresses on each port, within a port group, will be deleted and ports will learn source addresses again.
CsEvFormat/Event000d113c {d "%w- %d %m-, %Y - %T"} Port Learning Status is {T LearnState 3} for the port #{I 2}, located in port group {I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d113c A port's learning has been reset. When learning is reset, all secure addresses on the port will be deleted and the port will learn source addresses again.
CsEvFormat/Event000d113d {d "%w- %d %m-, %Y - %T"} Network Learning Mode is {T LearnMode 2} for the network interface #{I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d113d Network learning mode has changed between one-time learn mode and continuous learn mode.
CsEvFormat/Event000d113e {d "%w- %d %m-, %Y - %T"} Port Group Learning Mode is {T LearnMode 2} for the port group #{I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d113e A port group's learning mode has changed between one-time learn mode and continuous learn mode.

Table 4-1. MRXI-22/24 Events and Alarms (Continued)

CsEvFormat/Event000d113f {d "%w- %d %m-, %Y - %T"} Port Learning Mode is {T LearnMode 3} for the port #{I 2}, located in port group {I 1} of {m} ({t}). (event [{e}])	CsPCause/Prob000d113f A port's learning mode has changed between one-time learn mode and continuous learn mode.
CsEvFormat/Event00010810 {d "%w- %d %m-, %Y - %T"} RMON rising threshold trap received from model {m} of type {t}. AlarmIndex {I 1}, AlarmVariable {O 2}, AlarmSampleType {I 3}, AlarmValue {I 4} and AlarmRisingThreshold {I 5}. (event [{e}])	CsPCause/Prob00010810 1) The current sampled value of a user selected statistic is greater than or equal to the alarm rising threshold and the value at the last sampling interval was less than the threshold.
CsEvFormat/Event00010811 {d "%w- %d %m-, %Y - %T"} RMON falling threshold trap received from model {m} of type {t}. AlarmIndex {I 1}, AlarmVariable {O 2}, AlarmSampleType {I 3}, AlarmValue {I 4} and AlarmFallingThreshold {I 5}. (event [{e}])	CsPCause/Prob00010811 1) The current sampled value of a user selected statistic is less than or equal to the alarm falling threshold and the value at the last sampling interval was greater than the threshold.
CsEvFormat/Event00010812 {d "%w- %d %m-, %Y - %T"} RMON packet match trap received from model {m} of type {t}. Channel description: {S 3}. Channel had {I 2} matches. (event [{e}])	CsPCause/Prob00010812 1) A packet has matched the specified criterion for capture.
CsEvFormat/Event00830000 {d "%w- %d %m-, %Y - %T"} DLM LostContact trap for Destination Address {O 1}, Owner Address {O 2} from {t} device, named {m}. (event [{e}])	No Probable cause message.
CsEvFormat/Event00830001 {d "%w- %d %m-, %Y - %T"} DLM Threshold Trap for Destination Address {O 1}, Owner {O 2}, OID sequence {I 3}, OID Object {O 4} from {t} device, named {m}. (event [{e}])	No Probable cause message.
CsEvFormat/Event00830002 {d "%w- %d %m-, %Y - %T"} DLM ReestabContact Trap for Destination Address {O 1}, Owner Address {O 2} from {t} device, named {m}. (event [{e}])	No Probable cause message.

Table 4-1. MRXI-22/24 Events and Alarms (Continued)

CsEvFormat/Event000d1101 {d "%w- %d %m-, %Y - %T"} AC Utility Line Failure. The AC power to the UPS monitored by {m} ({t}) is offline. (event [{e}])	CsPCause/Prob000d1101 The UPS is now operating on battery backup and the utility voltage is not within a safe-operating range for your equipment.
CsEvFormat/Event000d1102 {d "%w- %d %m-, %Y - %T"} AC Utility Line Recovery. The AC power to the UPS monitored by {m} ({t}) is back online. (event [{e}])	CsPCause/Prob000d1102 AC Power has been restored to the UPS. The UPS is now operating normally and that power is present at the outlets.
CsEvFormat/Event000d1103 {d "%w- %d %m-, %Y - %T"} Low Battery Condition. The battery in the UPS monitored by {m} ({t}) is in a low condition. (event [{e}])	CsPCause/Prob000d1103 Power loss.
CsEvFormat/Event000d1104 {d "%w- %d %m-, %Y - %T"} Low Battery Recovery. The battery in the UPS monitored by {m} ({t}) has re-charged its battery above the low-battery point. (event [{e}])	CsPCause/Prob000d1104 Power has been restored.
CsEvFormat/Event000d1105 {d "%w- %d %m-, %Y - %T"} Abnormal Condition. The UPS monitored by {m} ({t}) has entered an abnormal condition, such as an overload or trip on low battery. (event [{e}])	CsPCause/Prob000d1105 1) Overload Condition: Too many devices are plugged into the UPS. 2) UPS Initial Power Up 3) Trip on Low Battery: The UPS has lost AC Power and the Battery is at a Low Condition.
CsEvFormat/Event000d1106 {d "%w- %d %m-, %Y - %T"} Abnormal Condition Recovery. The UPS monitored by {m} ({t}) has recovered from an abnormal condition. (event [{e}])	CsPCause/Prob000d1106 1) Power has been restored. 2) Load has stabilized to within specifications.
CsEvFormat/Event000d1107 {d "%w- %d %m-, %Y - %T"} UPS Shutting Down. The UPS monitored by {m} ({t}) has been ordered to shut itself, or the load, off over the serial line. (event [{e}])	CsPCause/Prob000d1107 1) Discharged Battery: Battery discharged due to an extended power outage. 2) Overload Condition: An overload condition has been detected while the UPS was operating on battery.

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